

# HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

## POWER OF ATTORNEY OR AUTHORIZATION OF AGENT AND CORRESPONDENCE ADDRESS

Application Number	10/717,207
Filing Date	November 19, 2003
First Named Inventor	J. Thomas Fowler
Confirmation Number	6009
Group Art Unit	2838
Examiner Name	Not Assigned
Attorney Docket Number	3556.1000-004

Title

BIDIRECTIONAL POWER CONVERTER FOR BALANCING STATE OF CHARGE AMONG SERIES CONNECTED ELECTRICAL ENERGY STORAGE UNITS

I/We hereby appoint

☒ the attorneys/agents associated with **Customer No. 021005**

☐ Practitioner(s) named below:

as my/our attorneys/agents to prosecute the application identified above, including any continuation or divisional applications thereof, and to transact all business in the United States Patent and Trademark Office connected therewith.

The correspondence address for the above-identified application is:

☒ Customer Number 021005

Hamilton, Brook, Smith & Reynolds, P.C.

530 Virginia Road

P.O. Box 9133

Concord, Massachusetts 01742-9133

☐ Other

Please direct all telephone calls and facsimiles to:

Name James M. Smith Tel. No. 978-341-0036 Fax No. 978-341-0136

I am the:

☐ Applicant/Inventor.

☒ Authorized representative of the Assignee, TIAX LLC, of the entire interest. See 37 C.F.R. § 3.71. A Statement under 37 C.F.R. § 3.73(b) is enclosed.

☐ Authorized representative of the Assignee, [ ], together with [ ], of the entire interest. A Statement under 37 C.F.R. § 3.73(b) is enclosed.

### SIGNATURE of Applicant or Assignee of Record

Name & Title

Signature

Date

JOHN M. COLLINS, EXECUTIVE VICE PRES.

APRIL 1, 2004



Docket No. 3556.1000-004

STATEMENT UNDER 37 C.F.R. § 3.73(b)

Inventor(s): J. Thomas Fowler, Allan Chertok, Darrell J. King, Gerald R. Larocque, Per Onnerud and Jay J. Shi

Application No./Patent No.: 10/717,207 Filed/Issue Date: November 19, 2003

For: BIDIRECTIONAL POWER CONVERTER FOR BALANCING STATE OF CHARGE AMONG SERIES  
CONNECTED ELECTRICAL ENERGY STORAGE UNITS

TIAX LLC, a Limited Liability Company  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is

- A. ☒ the assignee of the entire right, title and interest in the patent application identified above; or
- B. ☐ an assignee together with ☐ of the entire right, title and interest in the patent application identified above.

The right, title and interest of the above-named assignee in the patent application identified above is established by virtue of:

- A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s) of the patent application identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or a copy thereof is attached.

- ☐ Additional documents in the chain of title are listed on a supplemental sheet.

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Date: April 1, 2004

Name: JOHN H. COLLINS

Title: EXECUTIVE VICE PRESIDENT

Signature: [Signature]

**COPY** Joint

ASSIGNMENT

WHEREAS, we, **J. Thomas Fowler, Allan Chertok, Darrell J. King, Gerald R. Larocque, Per Onnerud and Jay J. Shi**, have invented a certain improvement in **BIDIRECTIONAL POWER CONVERTER FOR BALANCING STATE OF CHARGE AMONG SERIES CONNECTED ELECTRICAL ENERGY STORAGE UNITS** described in an application for Letters Patent of the United States,

- ☐ the specification of which is being executed on even date herewith and is about to be filed in the United States Patent Office (*use for 37 CFR §1.53(b) filings only*);
- ☒ the specification of which was filed on **November 19, 2003** as United States Application No. **10/717,207**;
- ☐ the specification of which is the United States National Stage of International Application No. [PCT Appl'n No.], filed on [PCT Filing Date] [OPTION and assigned United States Application No. [ ]] (*use for 35 USC §371 filings only*);
- ☐ which was patented under United States Patent No. [ ] on [ ] .

WHEREAS, **TIAX LLC** (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the **State of Delaware**, and having a usual place of business at **Acorn Park, Cambridge, Massachusetts 02140** desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its

successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature: \_\_\_\_\_

J. Thomas Fowler  
J. Thomas Fowler

State/Commonwealth \_\_\_\_\_

of MASSACHUSETTS

County of MIDDLESEX

Then personally appeared before me the above-named **J. Thomas Fowler** and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 16<sup>th</sup> day of DECEMBER, 2003.

(SEAL)

Joseph H. Centofanti  
JOSEPH H. CENTOFANTI

Notary Public

(print name)

My Commission expires 06 / 19 / 2009

Inventor's Signature: \_\_\_\_\_

Allan Chertok

State/Commonwealth

of MASSACHUSETTS

County of MIDDLESEX

Then personally appeared before me the above-named **Allan Chertok** and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 14<sup>th</sup> day of JANUARY, 2004.

(SEAL)

Joseph M. Centofanti Notary Public  
JOSEPH M. CENTOFANTI (print name)  
My Commission expires 6 / 19 / 09

Inventor's Signature: \_\_\_\_\_

Darrell J. King

State/Commonwealth

of MASSACHUSETTS

County of MIDDLESEX

Then personally appeared before me the above-named **Darrell J. King** and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 19<sup>th</sup> day of JANUARY, 2004.

(SEAL)

Joseph M. Centofanti Notary Public  
JOSEPH M. CENTOFANTI (print name)  
My Commission expires 06 / 19 / 2009

Inventor's Signature: \_\_\_\_\_

Gerald R. Larocque

State/Commonwealth

of MASSACHUSETTS

County of MIDDLESEX

Then personally appeared before me the above-named **Gerald R. Larocque** and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 2<sup>ND</sup> day of FEBRUARY, 2004.

(SEAL)

Joseph M. Centofanti Notary Public

JOSEPH M. CENTOFANTI (print name)

My Commission expires 06/19/09

Inventor's Signature: \_\_\_\_\_

Per Onnerud

State/Commonwealth

of MASSACHUSETTS

County of MIDDLESEX

Then personally appeared before me the above-named **Per Onnerud** and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 3<sup>RD</sup> day of MARCH, 2004.

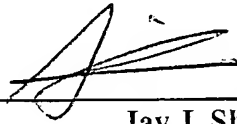
(SEAL)

Joseph M. Centofanti Notary Public

JOSEPH M. CENTOFANTI (print name)

My Commission expires 06/19/09

Inventor's Signature: \_\_\_\_\_



Jay J. Shi

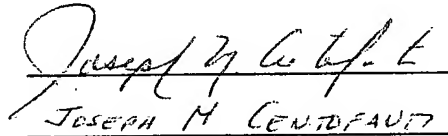
State/Commonwealth

of MASSACHUSETTS

County of MIDDLESEX

Then personally appeared before me the above-named **Jay J. Shi** and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 18<sup>th</sup> day of DECEMBER, 2003.

(SEAL)

  
JOSEPH M. CENTOFANTI

Notary Public

(print name)

My Commission expires 06 / 18 / 09